



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2022-0021; Project Identifier AD-2020-01283-A]

RIN 2120-AA64

Airworthiness Directives; Piper Aircraft, Inc., Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to adopt a new airworthiness directive (AD) for certain Piper Aircraft, Inc., (Piper) Model PA-46-600TP airplanes. This proposed AD was prompted by testing that showed that the wing splice assembly could fail before the assembly reaches its established life limit. This proposed AD would require revising the Airworthiness Limitations section of the existing maintenance manual (MM) or instructions for continued airworthiness to reduce the life limit of the wing splice assembly. The FAA is proposing this AD to address the unsafe condition on these products.

DATES: The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <https://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: (202) 493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.
- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact Piper Aircraft, Inc., 2926 Piper Drive, Vero Beach, FL, 32960; phone: (772) 299-2141; website: <https://www.piper.com>. You may view the service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 901 Locust, Kansas City, MO 64106. For information on the availability of this material at the FAA, call (817) 222-5110.

Examining the AD Docket

You may examine the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0021; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, any comments received, and other information. The street address for Docket Operations is listed above.

FOR FURTHER INFORMATION CONTACT: John Marshall, Aviation Safety Engineer, Atlanta ACO Branch, FAA, 1701 Columbia Avenue, College Park, GA 30337; phone: (404) 474-5524; email: john.r.marshall@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under ADDRESSES. Include “Docket No. FAA-2022-0021; Project Identifier AD-2020-01283-A” at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend this proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to <https://www.regulations.gov>, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this NPRM.

Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as "PROPIN." The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to John Marshall, Aviation Safety Engineer, Atlanta ACO Branch, FAA, 1701 Columbia Avenue, College Park, GA 30337. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Background

The FAA was notified by Piper of testing that showed that the wing splice assembly, part number (P/N) 46W57A100-001, could fail before reaching its established life limit on Model PA-46-600-TP airplanes. The wing splice assembly was certificated with a life limit of 5,132 hours time-in-service (TIS); however, the failures of the test assembly occurred before reaching that established life limit. The stress levels used in the life limit analysis were not adequate. After a new fatigue test article analysis, Piper reduced the life limit of the wing splice assembly P/N 46W57A100-001 from 5,132 hours TIS to 3,767 hours TIS and revised the Airworthiness Limitations section in the MM accordingly.

Failure of the wing splice assembly, if not addressed, could result in loss of airplane control. Airplanes having serial numbers 4698186 and larger (in production airplanes) will be delivered with an Airworthiness Limitations section with the reduced life limit incorporated.

FAA’s Determination

The FAA is issuing this NPRM after determining that the unsafe condition described previously is likely to exist or develop on other products of the same type design.

Related Service Information

The FAA reviewed Piper Aircraft, Inc., PA-46-600TP, M600 Maintenance Manual, Airworthiness Limitations, Section 4-00-00, dated August 31, 2021. This service information specifies the life limits of structural parts for the Model PA-46-600TP airplane, and reduced the life limit for the wing splice assembly.

Proposed AD Requirements in this NPRM

This proposed AD would require revising the Airworthiness Limitations section of the existing MM or instructions for continued airworthiness to reduce the life limit of the wing splice assembly.

Costs of Compliance

The FAA estimates that this AD, if adopted as proposed, would affect 127 airplanes of U.S. registry.

The FAA estimates the following costs to comply with this proposed AD:

Estimated costs

Action	Labor Cost	Parts Cost	Cost per airplane	Cost on U.S. operators
Revise the Airworthiness Limitations section	1 work-hour X \$85 per hour = \$85	Not Applicable	\$85	\$10,795

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA’s authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency’s authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress

charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Would not affect intrastate aviation in Alaska, and
- (3) Would not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

- 2. The FAA amends § 39.13 by adding the following new airworthiness directive:

Piper Aircraft, Inc.: Docket No. FAA-2022-0021; Project Identifier AD-2020-01283-A.

(a) Comments Due Date

The FAA must receive comments on this airworthiness directive (AD) by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to Piper Aircraft, Inc., Model PA-46-600TP airplanes, serial numbers 4698001 and 4698004 through 4698185, certificated in any category.

(d) Subject

Joint Aircraft System Component (JASC) Code 5711, Wing Spar.

(e) Unsafe Condition

This AD results from testing that showed that the wing splice assembly could fail before the assembly reaches its established life limit. The FAA is issuing this AD to prevent failure of the wing splice assembly before the current established life limit. The unsafe condition, if not addressed, could result in loss of airplane control.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Action

Within 90 days after the effective date of this AD, revise the Airworthiness Limitations section in the existing maintenance manual or instructions for continued airworthiness by reducing the life limit of the wing splice assembly part number 46W57A100-001 to 3,767 hours time-in-service.

Note 1 to paragraph (g): Section 4-00-00 of Piper Aircraft, Inc., PA-46-600TP, M600 Maintenance Manual, Airworthiness Limitations, Page 1, dated August 31, 2021, contains the life limit in paragraph (g) of this AD.

(h) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Atlanta ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local

Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in paragraph (i)(1) of this AD.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(i) Related Information

(1) For more information about this AD, contact John Marshall, Aviation Safety Engineer, Atlanta ACO Branch, FAA, 1701 Columbia Avenue, College Park, GA 30337; phone: (404) 474-5524; email: john.r.marshall@faa.gov.

(2) For service information identified in this AD, contact Piper Aircraft, Inc., 2926 Piper Drive, Vero Beach, FL, 32960; phone: (772) 299-2141; website: <https://www.piper.com>. You may view this referenced service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 901 Locust, Kansas City, MO 64106. For information on the availability of this material at the FAA, call (817) 222-5110.

Issued on January 26, 2022.

Lance T. Gant, Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.

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